

STUDIES ON THE GENUS *BIDENS* L. (COMPOSITAE) FROM THE EASTERN HEMISPHERE. 1. A NEW NAME AND A NEW COMBINATION FROM WEST TROPICAL AFRICA

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ABSTRACT

A new name and a new combination are provided for two species of African Compositae: *Bidens mannii* *nom. nov.* (= *Verbesina monticola* Hook. f.) and *Bidens barteri* *comb. nov.* (= *Coreopsis barteri* Oliver & Hiern). Lectotypes are selected for both names.

KEY WORDS: *Bidens*, *Coreopsis*, *Verbesina*, Compositae, taxonomy, Africa

This is the first in a series of papers dealing with the taxonomy of the genus *Bidens* L. from the Eastern hemisphere. Subsequent papers will include notes on typifications of African names, an account of the genus for the Flora of Tropical East Africa, and will culminate in a revision of *Bidens* for the whole of the Old World.

INTRODUCTION

The inclusion of African *Coreopsis* L. within *Bidens* was first proposed by Wild (1967). He considered the main distinction used by Sherff (1937) to segregate these two genera in Africa (the presence in *Coreopsis* and absence in *Bidens* of lateral wings on the cypselas) as unsatisfactory since it would lead to the separation of "obviously closely related species." This position has been followed by Mesfin Tadesse (1984) and Lisowski (1990). My own work (ined.) has also shown that African *Bidens* and *Coreopsis* are congeneric. The above authors have already moved many African *Coreopsis* to *Bidens*, however the following two transfers are still required.

Bidens mannii T.G.J. Rayner, *nom. nov.* Replaced synonym: *Verbesina monticola* Hook. f., J. Proc. Linn. Soc., Bot. 7:200. 1864. TYPE: CAMEROON. Cameroons mountains, 6 Nov. 1862, *Gustav Mann 1922* (LECTOTYPE [here selected]: K; Isolectotypes: GH [2 sheets], W). *Coreopsis monticola* (Hook. f.) Oliver & Hiern in Oliver, *Fl. Trop. Afr.* 3:390. 1877.

Hooker's protologue for *Verbesina monticola* (1864) was drawn from the *Gustav Mann* nos. 1219 and 1922 at K, both formerly in Hooker's own herbarium. Duplicates of the latter collection are housed at GH and W, but these bear no indications that they were seen by Hooker, and so are not considered for selection as lectotypes. Sherff (1936) stated that the "type" of this name was the specimen of *Mann 1922* at K, with "cotypes" at B and GH. At no point does he mention the syntype *Mann 1219*. This implies to me that he thought that *Mann 1922* at K was the holotype of this taxon, and thus I consider that he did not choose a lectotype.

The sheets of *Mann 1922* and 1219 at K are of similar quality, both bearing numerous leaves and capitula at various stages of development, including some with mature cypselas, and were probably used equally by Hooker in drawing his diagnosis and description. I have therefore decided to choose *Mann 1922* as the lectotype because of the existence of duplicates of this collection at GH and W.

The name *Bidens mannii*, chosen in honour of the collector of the type specimen, is necessitated by the prior existence of the validly published name *Bidens monticola* Poepig (1843).

Bidens barteri (Oliver & Hiern) T.G.J. Rayner, *comb. nov.* BASIONYM: *Coreopsis barteri* Oliver & Hiern in Oliver, *Fl. Trop. Afr.* 3:390. 1877. TYPE: WEST TROPICAL AFRICA. on the Niger, *W.B. Baikie s.n.* (LECTOTYPE [here selected]: K).

Oliver & Hiern (1877) cited two collections in their protologue: *Charles Barter 870* and *W.B. Baikie s.n.* Both syntypes are at Kew. Sherff (1936), following his usual practice of choosing the first cited specimen as the type, selected *Barter 870*. As a mechanical method of selection this is contrary to Article 8.1 of the *International Code of Botanical Nomenclature* (Greuter *et al.* 1988) and this choice may therefore be superseded. In choosing a new lectotype I have taken into account the following factors. Both specimens closely fit Oliver & Hiern's original description and clearly belong to the one taxon. The Baikie specimen, however, possesses flowering and fruiting capitula with mature cypselas, in contrast to *Barter 870* which only possesses a few insect damaged flowering heads. As mature fruit are of critical importance in differentiating between *Bidens barteri* and its nearest relatives I have chosen the Baikie specimen as the lectotype.

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